



# **2008 Keystone Crops & Soils Conference**



**October 21-22, 2008  
Harrisburg/Hershey Holiday Inn  
Grantville, PA**

**PENNSTATE**



**Hosted by:  
Penn State Capital Region Extension Agronomy Team  
&  
PennAg Agronomic Products Council**



# **Conference Details**

## ***Who Should Attend?***

Certified Crop Advisers, Ag Service Providers, Agronomists, Certified Pesticide Applicators, Nutrient Management Specialists and Planners, Crop Producers, Ag Specialists, Federal/State/County Agency Staff and anyone else with interest in the agronomic industry.

## ***What You Can Expect***

This two day conference will provide numerous educational sessions providing up-to-date agronomic information. This year's Seminar will offer Certified Crop Advisers the opportunity to earn up to 14 CCA Continuing Education Units (CEUs). CEUs will be available in the following categories: Nutrient Management (NM); Crop Management (CM); Soil and Water Management (SW) and Pest Management (PM). All credits noted in this brochure are pending and subject to change. Pesticide, Nutrient Management and Manure Hauler/Broker Certification credits have also been applied for.

## ***Registration Information***

Simply complete the form in this brochure and return with your payment to PennAg Industries Association by October 10, 2008. Registration rates are as follows: ***Both Days: \$180 One-Day Only: \$110***

For more information about registration or the program, please contact Amy Bradford at 717-651-5920 or via email at [abradford@pennag.com](mailto:abradford@pennag.com).

## ***Hotel Reservations***

A block of rooms has been reserved at the Harrisburg/Hershey Holiday Inn at a special rate of \$106 plus tax per night for a single or double room. To reserve a room in the block, please call the Harrisburg/Hershey Holiday Inn directly at 717-469-0661 and mention the Keystone Crops and Soils Conference. Reservations should be made no later than October 3, 2008. After this date, rooms may be reserved on an as-available basis. For more information about the hotel, including directions, visit [www.stayholiday.com](http://www.stayholiday.com).

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## **Agenda**

***Tuesday - October 21, 2008***

**8 a.m. Registration**

**8:30 a.m. Welcome**

**8:45 - 9:45 a.m. General Session - "Crop Production Updates"**

Receive up-to-date technical information from representatives of Pennsylvania's crop production support and service industry. Two representatives will speak per session. 1 PM CCA CEU

**10 - 10:50 a.m. Breakout Session - Group 1**

**"Forage Harvest: Capturing, Keeping and Managing Quality" Dr. Marvin Hall, Penn State University**

The forage standing in the field is of excellent quality but how can this quality be captured and kept so that it is still excellent quality at the feed bunk? Plus practical ideas about how different quality forages can be best partitioned to various groups of animals? 1 CM CCA CEU

**"Use Pest Controls Without Pests?" Dr. Richard Taylor, University of Delaware**

Several pest control products claim yield benefits from plant health/stress reduction effects. Reasons behind these claims and the outlook for profitable responses in our area will be covered. 1 PM CCA CEU

**"Managing N Under a New Paradigm: High Grain and High N Prices" Greg Binford, University of Delaware**

This presentation will discuss the concept of economic optimum N rate and the impact of grain and nitrogen fertilizer price ratios on this optimum. In addition, we'll discuss the effect of increasing grain yields on nitrogen-use efficiencies and methods that can be used to improve N efficiencies. 1 NM CCA CEU

**11 - 11:50 a.m. Breakout Session - Group 2**

**"Automation of Nutrient Plans and Nutrient Balance Sheets" Jennifer Weld, Penn State University**

The development and implementation efforts for the Standard Format Nutrient Management Plan (NMP) and Nutrient

Balance Sheet (NBS) spreadsheets will be discussed. NMP and NBS spreadsheet features will be demonstrated and will highlight combining nutrient management tools, automated calculations and references, and report generation. 1 NM CCA CEU

**“Getting the Most Out of Your Manure” *Dr. Doug Beegle, Penn State University***

Manure is an excellent source of nutrients for crops, however, nutrient recovery by crops from manure can range from over 75% to less than 15% depending largely on how it is managed. Management practices that effect nutrient use efficiency by crop from manure such as: incorporation, timing, cover crops, tillage, injection, etc. will be discussed. 1 NM CCA CEU

**“Ethanol and its Implications to the Agronomist” *Dr. Greg Roth, Penn State University***

Dr. Roth will discuss how ethanol production may create opportunities for farmers and for the agronomists who serve them. He will discuss potential ethanol crops, the current policies driving ethanol production and the indirect effects of ethanol production on cropping systems in Pennsylvania. 1 CM CCA CEU

**12 – 12:50 p.m. LUNCH**

**1 - 1:50 p.m. General Session - “Crop Production Updates”**

Receive up-to-date technical information from representatives of Pennsylvania’s crop production support and service industry. Two representatives will speak per session. 1 PM CCA CEU

**2 - 2:50 p.m. Breakout Session - Group 3**

**“Automation of Nutrient Plans and Nutrient Balance Sheets” *(REPEATED SESSION) Jennifer Weld, Penn State University***

1 NM CCA CEU

**“Getting the Most Out of Your Manure” *(REPEATED SESSION) Dr. Doug Beegle, Penn State University***

1 NM CCA CEU

**“Managing N Under a New Paradigm: High Grain and High N Prices” *(REPEATED SESSION) Greg Binford, University of Delaware***

1 NM CCA CEU

**3 - 3:50 p.m. Breakout Session - Group 4**

**“Sweet Corn Insect Management: Differences and Similarities to Management in Field Corn” *Dr. Shelby Fleischer, Penn State University***

Dr. Fleischer will discuss the latest research in managing sweet corn pests, including Bt sweet corn varieties, new insecticides, regional changes in corn borer populations, and status of pyrethroid resistance in corn earworm populations. 1 PM CCA CEU

**“Wheat Production: Changing Management with Changing Prices” *Dr. Richard Taylor, University of Delaware***

Wheat prices in the last year were at record highs. But the picture of input costs is changing as well. What effects should this have on production practice recommendations? 1 CM CCA CEU

**“Plant Chemical Defenses” *Dr. John Tooker, Penn State University***

Dr. Tooker will discuss some ecologically based strategies being explored for managing insect pests, including the harnessing of tactics that plants naturally use to defend themselves against insect attack. 1 PM CCA CEU

**4 - 4:50 p.m. Breakout Session - Group 5**

**“Soil Compaction: Risks for Timely Manure Application” *Sjoerd Duiker CCA, Penn State University***

Dr. Duiker will discuss the challenges of balancing manure application needs with risks of soil compaction, and what practices can be done to minimize the effects of compaction on crop growth. 1 SW CCA CEU

**“Species Selection for Conservation Plantings” *Andy Ernst, Ernst Conservation Seeds***

This session will detail species selection for difficult sights and focus on the establishment of warm species grasses. The Ernst family pioneered the use of numerous species of plants that are adapted to specific sites. In fact, many seeds are collected directly from difficult sights at their farm and then propagated for sale. Come with any questions you might have on seeding switchgrass and other warm seasons since the Ernsts have been successful in establishment across the state. 1 SW CCA CEU

**“Irrigation and Fertigation Management Considerations” *Tom McCarty, Penn State University Cooperative Extension***

This talk will discuss some of the basic principles of interaction between crops and soils under irrigation including the application of fertilizer through the irrigation system. Techniques of irrigation scheduling will be included. 1 SW CCA CEU

**5 p.m.                      Adjourn Day One**

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**Agenda**

*Wednesday - October 22, 2008*

**8 a.m.                      Registration**

**8:30 a.m.                      Welcome and Announcements**

**8:45 - 9:45 a.m.              General Session - “Crop Production Updates”**

Receive up-to-date technical information from representatives of Pennsylvania’s crop production support and service industry. Two representatives will speak per session. (1 PM CCA CEU)

**10 - 10:50 a.m.              Breakout Session - Group 1**

**“No-Till for Success: Soil Health Assessment” *Grant Troop, Park the Plow for Profit Program and Penn State University***

This session will focus on a detailed overview of soil quality, soil health assessment and high priority soil and water management issues. This session is a must for those interested in high yield no-till farming systems. 1 SW CCA CEU

**“The Role of Soil Microbes and Cover Crops for Soil Nutrient Management” *Dave Wilson, The Rodale Institute***

Dave will discuss cover crops and the soil rhizosphere with regards to soil quality and soil health. Discussion will include the importance and function of mycorrhizae and other soil microorganisms and their role in nutrient cycling, residue decomposition and carbon sequestration. Nitrogen fixation processes and contribution from legume cover crops will be included. 1 NM CCA CEU

**“Establishing Switch Grass” *Andy Ernst, Ernst Conservation Seeds***

Andy will detail the best practices currently used for the establishment of switchgrass on suitable sites. Land preparation, herbicide selection and seeding methods will be detailed during this session. 1 CM CCA CEU

**11 - 11:50 a.m.              Breakout Session - Group 2**

**“No-Till for Success: Nutrient Use Efficiency” *Grant Troop, Park the Plow for Profit Program and Penn State University***

A no-till look at nutrient cycling and use efficiency to determine nutrient management strategies for very high yield crop production in the no-till farming system. Lots of yield is never made because this input efficiency is not maximized. 1 SW CCA CEU

**“Nutrient Losses from Temporary In-Field Piles of Poultry Litter” *Greg Binford, University of Delaware***

Under Act 38, the Pennsylvania Nutrient Management Act, the temporary stacking of poultry litter in crop production fields is an accepted storage practice. This presentation will discuss the potential losses of nutrients from these piles. Additionally, the relative merits of different techniques for reducing nutrient losses will be discussed. 1 NM CCA CEU

**“Pennsylvania Nutrient and Odor Management Program Update” *Doug Goodlander, Pennsylvania State Conservation Commission***

Doug will provide his annual update of the nutrient management program. Additionally, an update will be given regarding the newly developed odor management program and what farmers should be aware of regarding these new requirements.

**12 – 12:50 p.m.              LUNCH**

**1 - 1:50 p.m.                      General Session - “News from Madison: A CCA Program Update”**

Luther Smith, the Director of Certification and Licensing for the American Society of Agronomy, which includes oversight and management of the International Certified Crop Advisers (ICCA) Program, will provide an update of the activities and initiatives of the ICCA. 1 PD CCA CEU

**2 - 2:50 p.m.****Breakout Session - Group 3****“Precision Ag: The Latest Technologies” *Brian Macafee, Penn State University***

Brian will discuss his experiences with precision ag technologies, including how and why Farm Operations has adapted these technologies to their production systems. He will also discuss some of the newer technologies that are currently being developed. 1 CM CCA CEU

**“Profitable Pastures” *Jonathan Rotz, Penn State University Cooperative Extension***

With increasing fuel and feed prices, pasture-based systems may be an even better solution to help increase on farm profits. This presentation will provide a broad overview of pasture practices that can be implemented on almost any farm with minimal costs. The specific focus will be to lower inputs through low cost production associated with grazing while maximizing profit through intensive management of the grazing system and animals. Although dairy and beef systems will be the focal point, these practices are practical for all grazing animal systems. 1 CM CCA CEU

**“Soil Compaction: Risks for Timely Manure Application” *(REPEATED SESSION from DAY ONE) Sjoerd Duiker CCA, Penn State University.***

Dr. Duiker will discuss the challenges of balancing manure application needs with risks of soil compaction, and what practices can be done to minimize the effects of compaction on crop growth. 1 SW CCA CEU

**3 - 3:50 p.m.****Breakout Session - Group 4****“Weed Management Update” *Dr. Bill Curran, Penn State University.***

Dr. Curran will discuss the latest issues affecting weed management recommendations in PA, with emphasis on new chemicals and herbicide tolerance traits, and potential new weed issues. 1 PM CCA CEU

**“Weed Issues in Vegetable Crop Production” *Dwight Lingenfelter, Penn State University***

Dwight will discuss the results of several herbicides tests done over the past few years in sweet corn and snap beans, including both crop tolerance and weed efficacy. Emphasis will be on the performance of new grass herbicides in sweet corn, plus new soil-applied herbicides for snap beans. 1 PM CCA CEU

**“Grain Crops Disease Control” *Dave Johnson CCA, Penn State University***

Dr. Johnson will discuss the results of work done in 2008 on fungicides in wheat, soybeans and corn, both for disease management and plant health. Several new products have become available for disease management in these crops. 1 PM CCA CEU

**4 - 4:50 p.m.****Breakout Session - Group 5****“Tips for Top Yields” *Del Voight CCA, Penn State University Cooperative Extension***

Discussion will center on the results of ten years of corn club entries. Key production practices will be highlighted and trends in production identified. 1 CM CCA CEU

**“Invasive Weeds” *Melissa Bravo CCA, Pennsylvania Department of Agriculture***

Ms. Bravo will discuss problem weeds in relation to no-till and pasture production systems, specifically tree-of-heaven in no till and multiflora rose control in pasture. Cultural and chemical control methods will be emphasized for these cropping systems. 1 PM CCA CEU

**“No-Tilling Small Seeded Crops” *Paul H. Craig CCA, Penn State University Cooperative Extension***

Paul’s presentation will include discussion on equipment selection and operation, planting planning and early development of forages during the establishment year. 1 SW CCA CEU

**5 p.m.****Conference Adjourns -- Thank you for coming!**

# Day One – Tuesday, October 21, 2008

All sessions worth one CCA CEU of category listed, unless otherwise noted.

LOCATION		
TIME	ROYALE I	ROYALE II
8a	Registration	
8:30a	Welcome and Announcements	
8:45a–9:45a	Crop Production Updates (PM)	
10–10:50a	“Forage Harvest: Capturing, Keeping & Managing Quality” (Hall) (CM)	“Use Pest Controls Without Pests?” (Taylor) (PM)
11–11:50a	“Automation of Nutrient Plans and Nutrient Balance Sheets” (Weld) (NM)	“Managing N Under a New Paradigm: High Grain and High N Prices” (Binford) (NM)
12p–12:50p	LUNCH	
1–1:50p	Crop Production Updates (PM)	
2–2:50p	<b>Repeated Session</b> “Automation of Nutrient Plans and Nutrient Balance Sheets” (Weld) (NM) “Sweet Corn Insect Management: Differences & Similarities to Management in Field Corn” (Fleischer) (PM)	<b>Repeated Session</b> “Getting the Most Out of Your Manure” (Beegle) (NM) “Wheat Production: Changing Management with Changing Prices” (Taylor) (CM)
3–3:50p	“Soil Compaction: Risks for Timely Manure Application” (Duiker) (SW)	“Plant Chemical Defenses” (Tooker) (PM)
4–4:50p	“Species Selection for Conservation Plantings” (Ernst) (SW)	“Irrigation & Fertigation Management Considerations” (McCarthy) (SW)
	<b>Repeated Session</b> “Managing N Under a New Paradigm: High Grain and High N Prices” (Binford) (NM)	



# Day Two – Wednesday, October 22, 2008

All sessions worth one CCA CEU of category listed, unless otherwise noted.

LOCATION		
TIME	ROYALE I	ROYALE II ROYALE III
8a	Registration	
8:30a	Welcome and Announcements	
8:45a– 9:45a	Crop Production Updates (PM)	
10– 10:50a	“No-Till For Success: Soil Health Assessment” (Troop) (PM)	“The Role of Soil Microbes & Cover Crops for Soil Nutrient Management” (Wilson) (NM)
11– 11:50a	“No-Till For Success: Nutrient Use Efficiency” (Troop) (SW)	“Nutrient Losses from Temporary In-Field Piles of Poultry Litter” (Binford) (NM)
12p– 12:50p	LUNCH	
1– 1:50p	General Session – “News from Madison: A CCA Program Update” (Smith) (PD)	
2– 2:50p	“Precision Ag: The Latest Technologies” (Macatee) (CM)	“Profitable Pastures” (Rotz) (CM)
3– 3:50p	“Weed Management Update” (Curran) (PM)	“Weed Issues in Vegetable Crop Production” (Lingenfelter) (PM)
4– 4:50p	“Tips for Top Yields” (Voight) (CM)	“Invasive Weeds” (Bravo) (PM)
		“Establishing Switch Grass” (Ernst) (CM)
		“PA Nutrient & Odor Management Program Update” (Goodlander) (NM)
		“Soil Compaction: Risks for Timely Manure Application” (Duiker) (SW)
		“Grain Crops Disease Control” (Johnson) (PM)
		“No-Tilling Small Seeded Crops” (Craig) (SW)

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# 2008 Keystone Crops and Soils Conference

## **REGISTRATION FORM**

Registrations Due by: **OCTOBER 10, 2008**

Name \_\_\_\_\_

CCA? ☐ Yes - Certification # \_\_\_\_\_  
☐ No

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

### Registration Fee:

☐ Both Days - \$180

☐ One-Day Only\* - \$110

(\*Please Indicate Which Day) ☐ Tuesday ☐ Wednesday

### Payment Options:

☐ Payment Forthcoming

☐ Please Invoice Me

☐ Payment Enclosed (Check payable to PennAg Industries Association)

☐ Please Charge my Credit Card

(Circle One) VISA      Mastercard      Discover

Name (on card) \_\_\_\_\_

Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

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Phone: 717-651-5920 ♦ Fax: 717-651-5926 ♦ Email: [abradford@pennag.com](mailto:abradford@pennag.com)